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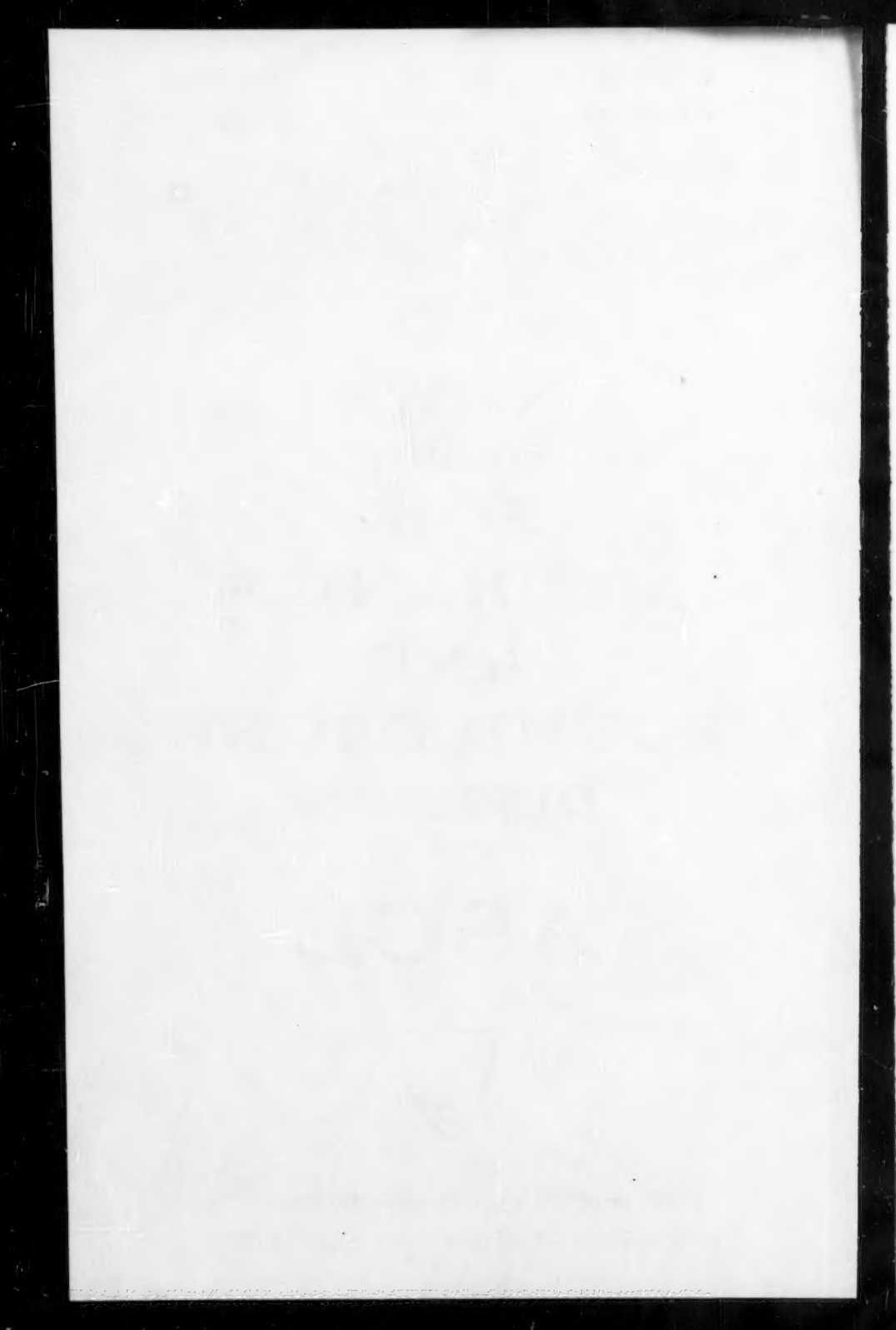
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PART 2

Your attention is invited

**NEWS
OF THE
SOIL
MECHANICS
AND
FOUNDATIONS
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OF
ASCE**



**JOURNAL OF THE SOIL MECHANICS AND FOUNDATIONS DIVISION
PROCEEDINGS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS**



DIVISION ACTIVITIES

SOIL MECHANICS AND FOUNDATIONS DIVISION

Proceedings of the American Society of Civil Engineers

NEWS

December, 1958

M.I.T. CONFERENCE ON DESIGN AND CONSTRUCTION OF EARTH EMBANKMENTS

The M.I.T. Soil Engineering Division held, during the period of September 2 through September 12, a program entitled, "Design and Construction of Earth Embankments." There were 82 who attended the course, including 22 from outside the United States, mostly from Canada. Eighteen of the group were professors.

Staff members of the M.I.T. Soil Engineering Division presented the principles of the engineering behavior of compacted soils and the principles of stability analyses. Mr. R. R. Philippe, Corps of Engineers, the first guest lecturer, discussed field compaction effort which would be used for various soils and for various types of embankments.

Dr. Harry Seed of the University of California summarized the CBR and the California methods of pavement design and presented new material on soil thixotropy, the effects on compacted soil of repeated loadings, and the meaning of "overcompaction."

Mr. John Lowe III, of the New York firm Tippetts, Abbott, McCarthy, Stratton, described several earth dam projects and then presented the "Lowe" method of stability analysis. This method involves the use of slices with an estimate made of the lateral forces on the sides of the slices.

Dr. Philip Rutledge, a partner of Moran, Proctor, Mueser and Rutledge, treated embankments on soft foundations. The soil foundations included organic silts, soft clays and slickensided clays. There were many comments and questions on the properties of the slickensided clays.

Dr. Ralph Peck of the University of Illinois gave an illustrated talk on the measurement and the performance of earth embankments. Measurements of settlement, lateral movement and pore water pressures were discussed and illustrated on a number of practical field installations.

At the program banquet Dr. Karl Terzaghi gave an illustrated semi-technical talk on the high Aswan Dam which is to be built on the Nile River in Egypt. He showed some beautiful slides of historical sites along the Nile as

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well as describing the engineering features of the Aswan Dam. He brought with him to the banquet several members of the Consultants Board of the high dam and several officials of the Egyptian Commission which is in charge of the project.

On the last day of the program, Mr. Hugh Dixon, a partner of the firm Howard Humphreys and Sons of England, described the Susuama Dam in Nairobi, Kenya. He showed a colored movie of the construction of this dam which is built of a clay composed largely of the mineral halloysite.

Because of the excellent response to this program, another is planned for the Summer of 1959. Two subjects are being considered, namely: 1) The Shear Strength of Soils, this program would cover the fundamental nature of shear strength and its determination both in the laboratory and in the field; 2) Advance Soil Mechanics, this program would be an advanced presentation of soil mechanics concentrating on developments made during recent years. Letters from the members of this Division to T. W. Lambe, Soil Engineering Division, Room No. 1-342B, Massachusetts Institute of Technology, Cambridge, Massachusetts, commenting on the proposed topics would be most appreciated. Desired is an indication of the probable attendance to a program late in August or early in September, 1959 and opinions as to which of the two above topics would best serve our profession.

ASTM Soil Testing Publication

The following publication has been announced by the American Society for Testing Materials:

PROCEDURES FOR TESTING SOILS

Compilation of Standards (D-18)

552 Pages, Paper Cover, 6 x 9 in., \$6.75

This publication contains 112 methods for testing soils. Of these, 39 are new and 12 are revised since the last edition of this publication in 1950.

The science of soil mechanics is a complex one, due to the very nature of the materials involved which vary not only geographically but locally as well. This variability of soils makes it especially difficult to develop standard methods of test that can be universally used for evaluating the engineering properties of soils.

ASTM Committee D-18 on Soils for Engineering Purposes has sponsored this publication, which includes all existing ASTM standards on testing soil. These standards are the result of general agreement and acceptance. Together with these standards are included proposed and suggested methods of test that have generally received wide recognition in the United States. A good many of these latter methods may ultimately become ASTM standards.

This publication is considered to be the only one that brings together in convenient form all of these various methods now in current use.

The soil test procedures are grouped into five categories, each pertaining to related phases of soil testing, as follows:

Part I Soil Explorations and Sampling of Soils

Part II Physical Characteristics, Physio-Chemical Properties, and Identification of Soils

Part III Physical and Structural Properties of Soils

Part IV Special and Construction Control Tests

Part V Soil Bearing Tests, Dynamic Properties of Soils, and Load Tests

Copies of this book may be obtained from ASTM Headquarters, 1916 Race Street, Philadelphia 3, Pennsylvania, at \$6.75 each. Review copies may be obtained by writing to ASTM.

Texas Section Meeting

The Soil Mechanics and Foundations Group of the Texas Section has just had a very interesting and well-attended technical session as a part of the Texas Section Meeting in San Antonio on September 26. Emphasis was given in this program to the problems involved in design of building foundations on the stiff, slickensided and swelling clay soils of Texas. The titles and authors of the papers presented are as follows:

"Study of Building Damage Caused by Heaving Foundation Soils," Roger C. Lind, McClelland Engineers, Inc., Houston.

"Foundation Engineering Field Studies in Expansive Clay Areas," Frank G. Bryant, Consulting Engineer, Austin.

"What are the Engineering Characteristics of Slickensided Clays?", Jack Watkins, Engineers Testing Laboratory, Inc., Houston.

A committee headed by Professor Raymond Dawson of the University of Texas investigating the problem of reproducibility of results of common soil tests reported that considerable progress is being made preparatory to developing a program of study to be undertaken by the group. A lively discussion pertaining primarily to the Atterberg limits followed.

The new officers of the Group effective immediately are Chairman, Albert J. Bonar, University of Houston in Houston; Vice-Chairman, Lymon C. Reese, University of Texas in Austin; Secretary, Raymond C. Mason, Mason-Johnston & Associates, Dallas.

Prior Publication Policy

The following announcement is made at the request of the Publications Committee and the Executive Committee of the Division:

It is the stated policy of ASCE that authors are required to "avoid extensive reprinting of material in print elsewhere or about to be printed elsewhere." This policy does not exclude papers printed in obscure publications, or those that have appeared earlier in an incomplete and/or descriptive form.

However, extensive reprinting of material, even from publications of limited circulation, may preclude subsequent publication in the Division Journal.

The Publications Committee of the Soil Mechanics and Foundations Division wishes to encourage prospective authors to submit papers for publication in the Division Journal and, therefore, calls attention to the "prior publication" policy of the Society in order that potential Journal papers will not be declined due to earlier publication. Publication in the Journal does not preclude later publication elsewhere, provided suitable acknowledgment (name, author, Journal reference) is made to the Society publication.

Terzaghi's Birthday Party

The general society luncheon at the Annual Meeting in New York City was held in honor of Dr. Terzaghi. His faithful student and long time associate, Arthur Casagrande, did a fine job as toastmaster.

Dr. Casagrande first introduced Past President Carlton Proctor as the founder and first chairman of our Soil Mechanics and Foundations Engineering Division. Mr. Proctor related how his partner, Daniel Moran, had invited Dr. Terzaghi to America in the early twenties. He told how the vision of a new science became a reality through the dedicated work of a few men. He stated a few of Dr. Terzaghi's outstanding awards and achievements, and then introduced his long time friend as the "Daddy" of soil mechanics.

Dr. Terzaghi's talk was brief and to the point. It was most refreshing and inspiring to listen to a gentleman 75 years young speak with such clarity, imagination and wisdom. He told of the problems facing the young soil mechanics graduate, such as being considered an expert and lacking the judgment and experience to do the job, or being inundated with a mountain of exploration data on a large project and deciding his soils training in school was impractical.

Dr. Terzaghi spelled out the requirements of an expert in soil mechanics to be (a) a keen sense of observation of data (b) a deep insight into the physical causes of the performance of structures (c) certain innate qualities within the individual and unfortunately not achieved regardless of the amount of effort applied.

Dr. Casagrande closed by stating that a memorial volume is being prepared in honor of Dr. Terzaghi which will include a variety of his writings, some of which have been translated and others never before published. A society award is also to be established bearing his name.

FEBRUARY NEWSLETTER

Deadline date for arrival at this office of contributions for the February Newsletter: December 20, please.

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